

THE SOUTHERN PLANTER;

Devoted to Agriculture, Horticulture, and the Household Arts.

Agriculture is the nursing mother of the Arts.
Xenophon.

Tillage and Pasturage are the two breasts of the State.—*Sully.*

C. T. BOTTS, Editor.

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For the Southern Planter.

PIPE CLAY AND COMPOST HEAPS.

Mr. Editor—I have been a constant reader of your valuable journal the two years last past, and have hoped to find a plan for the improvement of a particular kind of land, commonly called *pipe* clay; but thus far I have been disappointed. Will you or some of your practical correspondents be good enough to put me on a plan to improve a few acres of that kind of soil, which forms frequent barren spots in my flat land? Some of these spots are very wet, and though I have ditched all around them, they still remain so.

In return for the information desired above, I will give you some of my plans of proceeding which you may publish if you think them worth the trouble.

First, then, as regards the making of manure, the importance of which needs not to be pointed out to an intelligent farmer. In order to raise the largest possible amount, I keep my cattle on the same pen during the year, and keep that well littered with oak leaves or pine tags, (I prefer the tags,) and as opportunity offers, I haul sand or other earth and throw over the litter—taking care to plaster it well once or twice a week. Lime, no doubt, would be better than plaster. In this way twenty or thirty loads of good manure may be raised a year from each head. My stables I always keep well littered with the like materials, and plaster them regularly as the farm pens—cleaning them out only when compelled by the mass of manure. Previous to this operation, I have in readiness as much of leaves or other litter, and sand or other earth, (ditch bank or from fence corners,) as may be sufficient. I then commence (a rainy day being most suitable,) by putting down a layer of leaves twelve or eighteen inches thick, with a little sand or earth over them, in a pen of suitable size, and as near the stable as convenient. Over these, I throw a layer of the manure from the stable, not more than three inches thick, on which I throw another layer of leaves, then a layer of earth, six or eight inches thick, then plaster or lime. Lime is greatly to be preferred in this operation, and should be put one inch thick. Then comes the manure again for a second layer, and so on, till all the manure is taken from the stable. The manure of the

different cleanings may be put in the same pen, provided it be of sufficient size. I am not in favor of having the heaps too high. They should never be allowed to rise higher than four or five feet, and at that frequent holes should be made in the top with a sharp stake for the purpose of letting in the water. The heap should be carefully watched for a few days to see that the proportion of manure is not too great for the other materials; if it is, the manure will burn, or fire fang, as it is termed. I have had to take down one or two of my heaps on that account, and add more leaves, earth, &c. since I commenced the plan. But manure enough from the stable must be put in to produce the degree of heat necessary to decompose the other materials. In this way from forty to fifty loads of manure, a year, may be made from each horse, much superior to that raised in the farm pens.

I will here mention another valuable source for raising manure that has been resorted to but by very few farmers. I mean the kitchen.—Have a pit thirty or forty feet square and two or three feet deep, with a good bank around it. In this pit let the same materials, viz: oak leaves, pine tags, sand, earth, &c., be put in suitable layers; on which throw all the slop water, soap-suds, yard sweepings, ashes, contents of chambers, and in short, every thing that can be conveniently got together for the purpose. It may be at any convenient distance from the kitchen, so that the slop water, soap-suds, &c., may be conducted to it by a trough. Be sure that no water gets into it in any other way. If, at any time, it should become offensive, (to prevent which care should be taken,) start your teams immediately and cover it over with sand or earth sufficient to prevent the escape of any effluvia.

I consulted my physician before undertaking this plan, fearing that the health of my family might be endangered by it. He assured me, that with proper care, it would not only not produce any disease, but in all probability be a preventive, by taking into it all matter that might otherwise become offensive. In this pit, lime should be used freely, always putting it on the top after filling up. Lime, in my opinion, can be used more profitably in this way (I mean in manure heaps,) than in any other. I am not able to estimate the quantity of manure that can be raised annually in this way, as that must

depend on many circumstances. This plan I have not been able to carry out fully, owing to a scarcity of labor. However, I am determined for the future to take two of my hands out of the crop, whose business it shall be to collect materials and make manure in the way I have mentioned above, through the year. I would say something about hogs and sheep as sources of manure, were not my communication already longer than I intended it when I sat down. I hope many of your readers will try the plan recommended above and report their success through the medium of your valuable paper.

Very respectfully, &c.

COLONUS.

Cumberland, March 21, 1844.

We have had some experience with the "pipe clay," and our conclusion was, that it is the most worthless and unmanageable of soils. It is so tenacious and impermeable, that until its texture is altered by a mixture of sand, it is almost impossible to drain it. It is probable that where they can be had conveniently, coal ashes would be found highly advantageous. Such a soil is better adapted to the growth of herbage than to any other vegetable with which we are acquainted. There is a great deal of such land in Virginia, and a good article upon its management will be very acceptable.

A strong box to hold his money, is not more valuable to the farmer than the kitchen reservoir recommended by our correspondent. *Manure is only a dirty kind of money.*

With respect to our correspondent's preference for lime to plaster in his compost heaps, we can only say, that the propriety of using lime in this way is a mooted point, not only among practical farmers, but amongst the most profound chemists and philosophers of the day. Liebig seems to prefer the plaster on account of its action in arresting the ammonia, which, on the other hand, the lime has a tendency to liberate. C. W. JOHNSON, the author of the *Farmers' Encyclopedia*, says, "I have several times mixed lime, in cases where I suspected the presence of grub and the seeds of weeds, with farm yard compost, but never successfully. Convinced of the ill effects of the lime being thus mixed, I have long since abandoned the practice. There is in fact no beneficial effect to be obtained by this mode. The natural well regulated fermentation of the dung effects all that the lime can do, and in a better manner; for the lime dissolves, and, to a considerable extent, decomposes the finer and richer portions of the compost;

and it certainly renders the straw and other coarser portions of manure drier and more difficult to dissolve in the soil. The practice, therefore, seems worse than useless."

Our own inference is, that much depends upon the state in which the lime is applied. If it is used as *quick lime*, its chemical action is very powerful in decomposing the organic matter within its influence; producing great heat, and expelling the most valuable properties of the dung. On the other hand, if by long exposure it has become a complete carbonate, it has the property of other salts in arresting the further decomposition of organic matter, and in such a state may possibly be used with advantage to prevent the "fire fanging" of stable dung. As at present advised, we should prefer the use of plaster to lime in the compost heap.

FATTENING POULTRY.

From the American Agriculturist, whose editor is a connoisseur in such matters, we extract the following directions for preparing poultry for the table:

"The fowls being in good condition a fortnight to one month previous to the time they are wanted for killing, shut them up in a roomy, dry, well ventilated, and warm building, with either a ground, stone, or plank floor, as is most convenient. This should be cleaned every day, and straw several inches thick spread over a part of it, especially where geese and ducks are shut up, for the purpose of giving them good beds to sit in. As often as the litter gets soiled, remove it, and put clean straw in its place. A constant supply of food and water should now be kept before them, allowing the fowls to eat and drink as often and as much as they please. Gravel is indispensable for their health, and charcoal, together with a little lime or ground bones, is beneficial. Fowls fat better when they can get at their food as often as they please, and are not so apt to gorge themselves and become surfeited.

"For feed we prefer corn mostly; a little wheat, rye, or barley, is also very well as a change; oats have rather too much husk about them. In addition to these, boiled potatoes, sweet apples, pumpkins, and sugar beet, are excellent food, especially when mixed with a due proportion of mush or hasty pudding. Where sweet potatoes abound, they are an excellent substitute for the last. To the above, add daily a little lean meat, that which is cooked is preferred; and the last week of their fattening, for a finishing process, rice boiled in milk and sweetened with molasses, is very excellent.—

This may be called an expensive method; but our readers may be assured that the fowls will be enough better to pay for it. Meat derives much of its taste from the kind and quality of food that the animals consume; hence gross, fatty substances, fish, or anything that is disagreeable to the taste, should be avoided in the food given to fowls during the fattening process, as these invariably impart more or less of their disagreeable flavor to the flesh of the poultry fed upon them. It is well known that the celebrated canvass-back duck derives its delicacy of taste from feeding on the bulbous roots of a peculiar grass growing in the Chesapeake Bay, and that other kinds of ducks are scarcely eatable, in consequence of their living almost entirely upon fish. These remarks will hold good to most kinds of birds, both of the water and land, and, indeed, of all animals; accordingly as their food is good or bad, so will be the quality of the milk, meat, or eggs.

"We recollect, when a boy, of having occasionally seen geese and ducks nailed through the webs of their feet to planks and floors, and hens and turkeys tied up and so closely confined to stakes, that they could not exercise. This was done so that they might eat the faster!—How shockingly barbarous, and any one guilty of such a practice in these days, ought to be indicted, and severely punished for their cruelty and cupidity. We are totally opposed to the close confinement of beast or bird. Without exercise, the system cannot be in a healthy state; and the meat of close confined animals is never as good, to say the least of it, as when they have plenty of fresh air, and are allowed to move moderately about.

"The best method of killing fowls, is to cut their heads off at a single blow with a sharp axe, and then hang them up and allow them to bleed freely. By this process they never know what hurts them, or endure pain for a second. Wringing the necks of poultry is almost as shocking as nailing their feet to planks for the purpose of fattening them, and follows in the same barbarous category.

"Scalding the fowl previous to picking, injures the feathers, and makes it troublesome to dry them, and we think the quality of flesh is somewhat injured by this process, especially if the weather be not pretty cold at the time.—They should be picked as soon as possible after being killed, and their offal taken from them; be clean rinsed then in cold water, and hung up to dry, and kept as separate as possible till sold; packing them together in heaps injures the flesh. To be hung up and frozen for a few days, or even weeks before eating, makes the flesh more tender. To keep them the same length of time after roasting, especially if well stuffed, also adds to their delicacy of taste and tenderness.

"When the bird is brought on to the table, it

is perfectly shocking to see its head, legs, and feet, left upon it, though we know in many places this is fashionable, and considered highly genteel; but for our own part we detest such offal, and the sight of them frequently destroys our appetite for the time being. The process of carving also at the table is a dead bore. We like the French fashion of cutting up the bird in the kitchen or at a side table, and having it passed round on the dish, every one then helping himself to such pieces as he likes best."

For the Southern Planter.

PEAS.

Mr. Editor,—In your December Planter some remarks are made relative to sowing peas. For the last three years, at the last working the corn, which happened to be about the 3d and 5th July, I sowed a kind of hardy red pea, which also matures as early as any other we have, and which, by the bye, will remain through the winter on the ground perfectly sound, and if covered in the spring will come up and do well. The last summer I was more particular, both in measuring the peas as well as the land—the average quantity of seed was a half bushel to the acre—sowed on the 3d July. They came up well, and matured a bountiful crop. Many are now lying on the ground perfectly sound. They are truly a great fertilizer, perhaps not at all inferior to red clover, and much cheaper.

I have lent my aid to increase the circulation of the Planter in this vicinity—it is both instructive, interesting, neat and cheap, and I truly wish that it, or some other good agricultural work were in the hands of many more of our farmers—and also, I am truly pleased with your "cash system," for then, when I receive the work, I know that it is paid for.

Mr. Editor, I wish to make a few remarks on a compost that I put up early the last summer, and used. I crushed up 12 bushels of castor beans, with which I used 6 bushels stone lime, 6 bushels plaster, 24 bushels leached ashes, and about 150 bushels of very rich surface earth, putting a course of each till completed. It so remained for eighteen days; the corn then being about two feet high, when about one quart was put around the hill—increased ultimately to about a half gallon: this done, I gave the corn a working. During the whole time, even to the gathering, I could not perceive any good effect it had produced.

In my farm pen, I am making a compost of first woods litter, stable manure, marl, woods litter again, swamp muck or mud—having used three courses each to this time.

You can read this and throw it under the table.

J. BUNCH.

Chuckatuck, Nansemond, Dec. 27, 1843.

P. S.—If I could write intelligibly, and had any thing worth writing, I would take great pleasure in so doing. J. B.

Since writing the above, I saw two squares of the garden or English peas growing as handsomely as if it was April or May, the plants being some six inches high—seeded in November last—the young plants scarcely at all protected. This to me is something new, though it may not be to you.

J. BUNCH.

COMPARATIVE VALUE OF HAY, VEGETABLES AND CORN.

I wish to draw briefly the attention of farmers to the value of hay, compared with other crops, for the feeding of stock. An acre of hay yields one ton and a half of vegetable food. An acre of carrots, or Swedish turnips, will yield from ten to twenty tons; say fifteen tons, which is by no means an exaggerated estimate. It has been ascertained by experiment, that three working horses, fifteen and a half hands high, consumed at the rate of two hundred and twenty-four pounds of hay per week, or five tons one thousand and forty-eight pounds of hay per year, besides twelve gallons of oats per week, or seventy-eight bushels by the year. An unworked horse consumed at the rate of four and one quarter tons of hay in the year. The produce, therefore, of nearly six acres of land is necessary to support a working horse by the year; but half an acre of carrots, at six hundred bushels to the acre, with the addition of chopped straw, while the season for their use lasts, will do it as well, if not better. These things do not admit of doubt. They have been subjects of exact trial. It is believed that the value of a bushel of Indian corn in straw and meal, will keep a healthy horse in good condition for a week. An acre of Indian corn which yields sixty bushels, will be ample for the support of a horse through the year. Let the farmer, then, consider whether it be better to maintain his horse upon the produce of half an acre of carrots, which can be cultivated at an expense not greatly exceeding the expense of half an acre of potatoes, or upon half an acre of ruta baga, which can be raised at a less expense than potatoes, or upon the grain produce of an acre of Indian corn, or on the other hand upon the produce of six acres of his best land in hay and grain; for six acres will hardly do more than to yield nearly six tons of hay and seventy-eight bushels of oats. The same economy might be as successfully introduced into the feeding of our neat cattle and sheep.

These facts deserve the particular attention of the farmers who are desirous of improving their pecuniary condition. It is obvious how much would be gained by the cultivation which

is here suggested; how much more stock would be raised; how much the daily produce might be increased; and how much the means of enriching the land and improving the cultivation would be constantly extending and accumulating. But when we find on a farm of two hundred acres, that the farmer cultivates only two acres of potatoes, one acre of ruta baga, and perhaps a quarter of an acre of carrots, we call this "getting along," in the common phrase; but we can hardly dignify it with the name of farming. I am aware that labor of a proper kind is in many cases difficult to be procured, and with our habits, as difficult to be managed, farming, likewise, can in few situations be successfully managed, unless the farmer has capital to employ, equal at least to one year's manure and one year's crops. A large portion of our farmers, also, from the nature of their habits and style of living, are so prosperous and independent, that they have no occasion to extend their cultivation beyond what it now is, in order to meet their wants; and to incur all the trouble, vexation and risk of employing more labor, expending more capital, and increasing their cares.

Colman's Agricultural Survey.

For the Southern Planter.

CORN.

Mr. Editor,—To the Southern farmer, the corn crop is one of great interest, and although we have communications, in the Planter, from men of experience and observation, yet in none have I remarked any notice of what, with me, is an object, that is, in turning under a sod of any kind, (and with me one is always desirable,) to cultivate the land in such a way as not to turn it up during the growth of the corn.—The following is my mode of cultivation:—A little before planting, I run heavy harrows the way the plough went in the fallow; I then run off the rows shallow, with a shovel or scoop plough, it being one that leaves loose soil in the furrow; when the corn is large enough to thin, I run close on each side with a common new ground coulter, thin and weed; after which, I run cultivators made of square bar iron, set in the beams so as to cut within four and a half inches of each other. These I run as often as I find them necessary, some land and some seasons requiring more than others, and with those, and from one to two hoes, I subdue the grass, and keep the land well stirred in all ordinary seasons until I quit working, which is as soon as the corn begins to tassel. But in very wet seasons, I have sometimes to resort to the turn plough, taking care then to run shallow, in order to disturb the sod as little as possible, and never to use them longer than the season compels me. I find that when the sod is turned up to the sun

the decayed vegetation quickly evaporates, and that when it remains under it nourishes the crop until it is matured. I also find the above to be a labor-saving system. I have long been opposed to turning up the land to the winter's frost, but I find, unless clovered land intended for corn is fallowed by the 15th of February, that it almost invariably suffers by the worm; my clovered land I, therefore, fallow in winter, if possible, and that for timothy and herdsgrass in the spring.

Respectfully, A FLUVANNIAN.

LIME.

To our poor thinking, by far the most able, the most profound, and the most practical dissertation that we have ever seen upon the application of *LIME* to the soil, is to be found in the "Third Part of Lectures on Agricultural Chemistry, by JAMES F. W. JOHNSTON, M. A. F. R., &c. &c. &c." We will endeavor, by means of comments and extracts, to present the general views of the lecturer in an abridged and condensed form before our readers, assured, that it will form at least an excellent text for the notes and commentaries of such of our correspondents as are versed in this interesting and important subject.

In the first place, Mr. Johnston calls the hearer's attention to the five different states in which, under the general name of lime, this substance is applied to the soil, and these distinctions he seems particularly anxious to enforce, because he conceives that a confusion of them has led to much of that contrariety of opinion that exists upon the subject. The first grand destruction is between *mild* and *caustic* lime. Pure lime has a wonderful affinity for carbonic acid, with which it combines to form a carbonate of lime; when it loses its causticity, and changes some of its other properties. With this tendency to attract carbonic acid from the atmosphere, lime is always found after long exposure in the state of a carbonate. By subjection to heat, the carbonic acid is expelled and the causticity restored. Quick lime, or that from which the carbonic acid has been expelled, when subjected to the action of water, combines with it, and becomes converted into a milder or less caustic compound, which among chemists is known by the name of *hydrate of lime*. By exposure to the atmosphere, quick lime becomes *air slacked*; that is, one-half of the lime unites with the water, and the other half with the car-

bonic acid of the atmosphere. In this state, it is only half caustic, and has a tendency to attract more carbonic acid from the atmosphere until it becomes a perfect carbonate, and entirely mild. Nature also furnishes lime in another form, that is when it is united with a double proportion of carbonic acid: it is then called a *Bi-carbonate*. In this form, it is readily soluble, and hence springs are often impregnated with it, and the waters that gush from fissures in the lime stone rocks, spread it through the soil in their neighborhood, and sweeten the land.

Mr. Johnston seems to think that the presence of lime in some shape or other is absolutely necessary to the productiveness of a soil, inasmuch as "it seems that in nature all cultivated plants do absorb lime by their roots from the soil, and make use of it in some way in aid of their growth." But there are several states of chemical combination in which it may exist; as in that of a *phosphate*, a *humate*, a *silicate*, a *carbonate*, a *sulphate*, &c. For the detection of all these, Mr. Johnston furnishes appropriate tests, but as it is known to the generality of readers only in the forms in which it is most usually found, viz: either as a *sulphate* or *carbonate*. We extract his remarks on these two compounds alone:

In that of sulphate of lime or gypsum.—In this state also it is not a constant, and in a few cases only an abundant, constituent of the soil. Its presence may be detected by the deposition of minute crystals on the sides of the vessel during the evaporation of the solution obtained by boiling the soil in distilled water. Or, its presence may be inferred if, after observing that oxalate of ammonia causes a precipitate in one small portion of the solution, it be found that nitrate of baryta also throws down a white precipitate from another small portion.

In the state of carbonate, lime is generally supposed most usually to exist, and most abundantly in all soils. If on pouring dilute muriatic acid upon a soil, a visible effervescence or escape of minute bubbles of gas manifest itself, or if, when the experiment is made in a tube closed at one end, and inverted over water or mercury, bubbles of gas collect in the upper end of the tube—the soil contains *some* carbonate. If after ammonia has been added to the solution, oxalate of ammonia throws down a white precipitate of oxalate of lime—the soil contains carbonate of lime."

We have been frequently asked *what quantity of lime is to be applied to an acre*. We will endeavor to give Mr. Johnston's views on this

point, by extracting and condensing his remarks as they are scattered through the lecture:

"On clay lands more lime is necessary than on light and sandy soils. This may be partly ascribed to the physical effect of the lime in opening and loosening the stiff clay—but independent of this action the particles of lime are liable to be coated over and enveloped by the fine clay, and thus shut out from the access of the air. These particles, therefore, must be more numerous in such a soil if as many of them are to be exposed to the air as in lighter land, through which the atmospheric air continually permeates.

"On wet and marshy soils, a larger application still may be made with safety, and partly for the same reason.

"The moisture surrounding the lime shuts out the air, without the ready access of which lime cannot perform its important functions.—The same moisture tends to carry down the lime and lodge it more speedily in the subsoil. The continued evaporation also keeps such soils too cold to allow the chemical changes, which lime in favorable circumstances produces, to proceed with the requisite degree of rapidity. The soluble compounds which are formed as the consequence of these changes are, in wet and marshy soils, dissolved by the moisture, and so diluted as to enter in smaller quantity into the roots of plants. And lastly, in certain cases, new compounds of the lime with the earthy and stony matters of the soil are formed, which may either harden into visible lumps of mortar and cement, or into smaller particles of indurated matter, in which the lime is no longer in such a state as to be able to act in an equal degree as an improver of the soil.

"In cold and wet clays, in which all these evil conditions occasionally meet, it is not surprising, therefore, that large doses of lime should sometimes have been added without producing any sensible benefit whatever.

"Again, when the soil is also rich in vegetable matter, lime may be still more abundantly applied. Thus, when a field is at once wet or marshy, and full of vegetable matter, as our peat bogs are, lime may be laid on more sparingly than under any other circumstances. For in this case, besides the action of the excess of water, as above explained, the vegetable matter combines with and masks the ordinary action of a considerable quantity of the lime.—By this combination, no part of the ultimate influence of the whole lime upon the soil is necessarily lost; in most cases the *immediate* effect only is lessened, which the same quantity applied to other soils would have been seen to produce. In favorable circumstances its action is retarded and prolonged, the compounds it forms

with the vegetable matter decomposing slowly, and, therefore, remaining long in the soil.

"Not only the natural depth of the soil, as already stated, but also the depth to which it is usually ploughed, and to which it is customary to bury the lime, will materially affect the quantity which can be safely applied. A dose of lime which would materially injure a soil into which the plough rarely descends beyond two or three inches, might be too small an application where six or eight inches are usually turned over by the plough. When new soil, also, is to be brought up, which may be supposed to contain no lime, or in which noxious substances are present, a heavier dose of lime must necessarily be laid upon the land.

"Such are the circumstances in which large applications of lime may be usefully applied to the land. In soils of an opposite character not only will smaller quantities of lime produce an equally beneficial effect, but serious injury would often be inflicted by spreading it too lavishly upon your fields.

"The more dry and shallow the soil, the more light and sandy, the less abundant in vegetable matter, the more naturally mild its locality, and the drier and warmer the climate in which it is situated—the less the quantity of lime which the prudent farmer will venture to mix with it. It is to the neglect of these natural indications that the exhaustion and barrenness that have occasionally followed the application of lime are to be ascribed. It is only in rare cases, such as the presence of much noxious mineral matter in the soil, that these indications can be safely neglected.

"But a difference of opinion also prevails amongst practical men, as to whether that quantity of lime which land of a given kind may require ought to be applied in large doses at long intervals, or in small quantities frequently repeated. The indications of theory in reference to this point are clear and simple.

"A certain proportion of lime is indispensable in our climate to the production of the greatest possible fertility. Let us suppose a soil to be wholly destitute of lime—the first step of the improver would be to add to it this indispensable proportion. This would necessarily be a large quantity, and, therefore, *to land limed for the first time theory indicates the propriety of adding a large dose.*

"Every year, however, a certain variable proportion of the lime is removed from the soil by natural causes. The effect of this removal in a few years becomes sensibly apparent in the diminished productiveness of the land. After the lapse of five or six years, during which it has been gradually mixing with the soil, the beneficial effects of the lime are generally the most striking—after this they gradually lessen, till at the end of a longer or shorter period, the

land reverts to its original condition. *To keep land in its best possible state, therefore, the natural waste ought from time to time to be supplied by the addition of smaller doses of lime at shorter intervals.*

"The most injurious effect of an over-liming, whether it be laid on at one or at successive periods, is the exhaustion by which it is succeeded. 'An over-dose of shell-marl,' says Lord Kames, 'laid perhaps an inch thick, produces for a time large crops, but at last renders the soil capable of bearing neither corn nor grass, of which there are many examples in Scotland.' The same is true of lime in any form. The increased fertility continues as long as there remains an adequate supply of organic (animal and vegetable) matter in the soil, but as that disappears the crops every year diminish both in quantity and in quality.

"From the possession of this exhausting property has arisen the almost universally diffused proverb, that *lime enriches the fathers but impoverishes the sons.* The fault, however, is not in the lime, but in the improvident fathers, who in this case, as in so many others, exhaust and inconsiderately squander the inheritance of their sons. If care be taken to keep up the supply of organic matter in the soil—by copious additions of manure or otherwise—lime may be added freely and a system of high farming kept up, by which both the present holder of the land, and his successor, will be equally benefited.

"The opinion expressed by some of the highest authorities among practical men, that too much lime *cannot* be added, provided the soil abound sufficiently in vegetable matter, may perhaps be rather over-stated; but it undoubtedly embodies the result of long-continued general observation, that the exhausting effect of lime may be postponed indefinitely by a liberal management of the land."

As to the manner of application, we extract the following:

"In regard to the period of the year and of the rotation, there are three principles by which the procedure of the practical man ought chiefly to be directed.

That lime takes some time to produce its known effects upon the soil.—It ought, therefore, to be applied as long as possible before the crop is sown. That is, in the early autumn, where either winter or spring corn is about to be sown,—on the naked fallow where the land is allowed to be at rest for a year,—or on the grass fields before breaking up, where the pasture is to be immediately succeeded by corn.

That quick-lime expels ammonia from decomposed and fermenting manure.

"When such manure, therefore, is applied to the land as it is in all our well-farmed districts, quick-lime should not be so laid upon the land

as to come into immediate contact with it. If both must be applied in the same year, they should be laid on at periods as distant from each other as may be convenient, or if this necessity does not exist, the lime should be spread either a year before or a year after the period in the rotation at which the manure is usually applied.

"It is for this reason, as well as for the other already stated, that lime is applied to the naked fallow, to the grass before breaking up, or along with the winter wheat after a green crop which has been aided by fermented manure. When ploughed into the fallow, or spread upon the grass, it has had time to be almost completely converted into the mild state, (that of carbonate,) before the manure is laid on. In this mild state it has no sensible effect in expelling the ammonia of decomposing manure. Again, when it is applied in autumn along with, or immediately before the seed, the volatile or ammoniacal part of the manure has already been expended in nourishing the green crop, so that loss can rarely accrue from the admixture of the two at this period of the rotation.

"The excellent elementary work of Professor Lowe contains the following remark: 'It is not opposed to theory that lime should be applied to the soil at the same time with dung and other animal and vegetable substances, as is frequent in the practice of farmers.' This is strictly correct only in regard to marls, lime-sand, &c., or to perfectly mild lime, any of which may be mixed, without loss, with manure in any state. Of quick or caustic lime it is correct only when the animal or vegetable matter has not yet begun to ferment. With recent animal or vegetable matter quick-lime may be mixed up along with earth into a compost, not only without the risk of much loss, but with the prospect of manifest advantage.

That quick-lime hastens or revives the decomposition of inert organic matter.—This fact also indicates the propriety of allowing the lime as much time as possible to operate before a crop is taken from land in which organic matter already abounds. Or where fermenting manure is added, it advises the farmer to wait till spontaneous decomposition becomes languid, when the addition of lime will bring it again into action and thus maintain a more equable fertility."

As to the effects of lime upon the productions of the soil, we make the following extracts:

It improves the quality of almost every cultivated crop.

"Thus, upon limed land,

The grain of the corn crops has a thinner skin, is heavier, and yields more flour, while this flour is said also to be richer in gluten. On the other hand, these crops, after lime, run less to straw, and are more seldom laid. In wet seasons (in Ayrshire) wheat preserves its healthy

appearance, while on unlimed land, of equal quality, it is yellow and sickly. A more marked improvement is said also to be produced both in the quantity and in the quality of the spring-sown than of the winter-sown crops (Puvis).

"*Potatoes* grown upon all soils are more agreeable to the taste and more mealy after lime has been applied, and this is especially the case on heavy and wet lands, which lie still undrained.

"*Turnips* are often improved both in quantity and in quality when it is laid on in preparing the ground for the seed. It is most efficient, and causes the greatest saving of farm-yard manure where it is applied in the compost form, and where the land is already rich in organic matter of various kinds.

"*Peas* are grown more pleasant to the taste, and are said to be more easily *boiled soft*. Both beans and peas also yield more grain.

"*Rape*, after a *half-liming* and manuring, gives extraordinary crops, and the same is the case with the *colza*, the seed of which is largely raised in France for the oil which it yields.

"On *flax* alone it is said to be injurious, diminishing the strength of the fibre of the stem. Hence, in Belgium, flax is not grown on limed land till seven years after the lime has been applied.

"*It hastens the maturity of the crop.*—It is true of nearly all our cultivated crops, but especially of those of corn, that their full growth is attained more speedily when the land is limed, and that they are ready for the harvest from ten to fourteen days earlier. This is the case even with buckwheat, which becomes sooner ripe, though it yields no larger a return, when lime is applied to the land on which it is grown.

"The liming of the land is the harbinger of health as well as of abundance. It salubrifies no less than it enriches the well cultivated district. I have already drawn your attention to this as one of the incidental results which follow the skilful introduction of the drain over large tracts of country. Where the use of lime and of the drain go together it is difficult to say how much of the increased healthiness of the district is due to the one improvement, and how much to the other. The lime arrests the noxious effluvia which tend to rise more or less from every soil at certain seasons of the year, and decomposes them or causes their elements to assume new forms of chemical combination, in which they no longer exert the same injurious influence upon animal life. How beautiful a consequence of skilful agriculture, that the health of the community should be promoted by the same methods which most largely increase the produce of the land! Can you doubt that the All-benevolent places this consequence so plainly before you, as a stimulus to further and more general improvement—to the application of other knowledge still to the amelioration of the soil?"

But it is impossible that within our limited pages we can find room for all that is good and valuable in this incomparable treatise. We hope we have said and done enough to induce every one, who has the facilities for liming his land within his reach, to provide himself (which he can do at an expense of thirty-one and a quarter cents) with the whole work.

For the Southern Planter.

VALUE OF AGRICULTURAL PAPERS—ASHES FOR STOCK.

Mr. Editor,—I have been a subscriber to your paper from its commencement, and I would not be without it for twice the amount of the subscription. I look forward to the day of its arrival with anxiety; one number has been worth more to me than all the subscription money I have ever paid you. I am using my best exertions to obtain subscribers for you. I am a young farmer, surrounded by a community of land killers, who look upon *book farming*, as they term it, as humbuggery. I showed a number of my Southern Planter to one of my neighbors, and asked him to become a subscriber; he laughed at the request, and said he would profit by my example. Not long after, one of his oxen got choked with an ear of corn; he did not know what to do; some advised him to kill him, but his wife advised him to send for me. Her advice prevailed, and post haste he came over for me. I went over, and from the knowledge I had obtained from the Cultivator, I relieved the animal in five minutes. I had the pleasure of saving the life of an ox, for which he said he would not take twenty dollars. I informed him where I obtained my information, and asked him again to become a subscriber to your paper, but he would not. I have gained much information from your able correspondents, and am in hopes I shall be able to give them something in return.

In fattening my hogs this year, I had a quantity of ashes put into my pen, and sprinkled over with salt, of which they ate greedily, and I never saw hogs fatten faster in my life; since then, I have used the ashes freely to my cattle, and they have mended wonderfully.

I remain yours, &c.

A. W. COUSINS.

For the Southern Planter.

EXTRAORDINARY FECUNDITY.

Mr. Botts,—There was an instance of greater fecundity in my neighborhood a few days ago, than I have ever heard of before. Nature made the effort, but the constitutional powers of the

animal were not sufficient to accomplish her purpose.

A ewe belonging to Mr. William Applebury, (S. A.) about two years old, became so disabled and diseased from the excessive distension of the uterus, as to make her entirely helpless and apparently dying. Mr. Applebury thought it most humane to have her killed. On examining the contents of the womb, he found four perfect lambs near sufficiently matured for birth. A fine subject for the physiologists.

J. M. W.

Chatham, Feb. 17, 1844.

As an accompaniment to the above, we may mention that a gentleman of this city, of the highest respectability, called at our office a few days since and stated, that a sow on his farm in the neighborhood had the evening before given birth to eleven fine full grown pigs, and that about twelve hours after, she produced another litter of ten, about three-fourths matured—evidently the result of a second conception.

IMPROVEMENT OF WORN-OUT LANDS.

From a very intelligent traveller, whose acquaintance we happened to make as he was passing through our city, we have received the following communication:

Fayetteville, Cumberland Co., N. C.

C. T. BOTTs, Esq.

Dear Sir,—In passing through parts of Virginia and North Carolina, I was much surprised to see large fields lying waste, which I was informed had been abandoned as "worn out," whilst the proprietor had substituted new grounds for them, at all the expense and inconvenience of a new home and a new clearing. Beside the sacred and endearing associations which usually cluster around the ancient homestead, a great pecuniary loss must be sustained in the pursuit of this system. It would seem that one-half of the time and labor required to fit a new farm for the crop, would restore the old one. A plan for the improvement of old lands is very successfully practised at the North, which, it appears to me, would be applicable here. It is as follows:

Procure as many bushels of buckwheat as there may be acres to improve, and as soon as the spring opens, plough the fields deep and sow the buckwheat broadcast, and harrow it in. This on the very poorest lands at the North will yield a quick and luxuriant growth.

As soon as the crop is in full blossom, (unless it has grown so rank as to have lodged of itself,) flatten it to the ground by the use of a roller, followed immediately by the plough, which

shall whirl it under. Sow again another bushel to the acre upon the upturned sod, rake it in, and as before, turn it under. Then sow the seed of the largest kind of red clover, which should be suffered to grow to maturity, then to be trampled down and eaten off by stock. To all these crops, one bushel of plaster per acre, applied when they are about one-fourth grown, will vastly increase the amount of vegetable matter, and will also secure a more extended fermentation.

At the end of the second year, all lands thus treated, will be restored to their original fertility. At least, I know from experience that such has been the effect in the more northern sections of the Union, and I do not see why the same result should not follow at the South.

A NORTHERN FARMER.

WATER-ROTTING HEMP.

To the Editor of the Southern Planter:

Sir,—It is from no desire to appear in print, that I ask a small space in your valuable paper, to enable me to give my mite of information on the subject at the head of this article, but simply the carrying out of an intention long since made of publishing my experience on the mode of water-rotting hemp—I am the more induced to do this, because in Virginia it is very little understood, if indeed, I am not almost the only one at all engaged in it. While on the subject of hemp, perhaps it might not be amiss to say something in a general way as to its cultivation and management; I shall, therefore, give my views:

- 1st. As to the sort of land suitable for hemp.
- 2d. Its preparation; the time and manner of sowing; quantity of seed; time of pulling or cutting, and manner of securing.
- 3d. The ordinary mode of dew-rotting, and subsequent management.
- 4th. The water-rotting process.

1st. Then, it is useless to sow hemp on poor land; rich soil is indispensable. Rich tobacco lots, flat rich creek or river bottoms, mountain hollows with southern exposure, or clover lands where two or three successive crops have been permitted to fall. These are the only lands from which a good crop of hemp may be expected. As to the preparation of the soil, a tobacco lot requires nothing but to be broken up with a barshare, (just before sowing,) harrowing, sowing and ploughing in quite shallow, with the shovel plough. Most other lands, especially meadow and clover lands, should be well broken up in the fall, and again in the winter or early in spring, and well harrowed, and finally, before sowing closely bull-tongued, harrowed, sowed, and snowed, about three inches deep. As to the time of sowing, there is some difference of opinion. Some sow as

early as the first of April; while others contend that as late as the 15th of May is best: both are, I think, on the extreme. In this climate, from the middle of April to the first of May is perhaps about right; say just before corn planting. Hemp should never be stinted; it should be sowed when the ground is warm, so that it may come up soon and grow off vigorously, and never have a check from drought. It differs essentially from corn, tobacco, &c., in this respect; for these speedily recover from a check, but hemp does not. As to the quantity of seed, it is said too much cannot be put in, as all the seed over and above what the strength of the land will germinate, will perish. The usual quantity on very rich land is two bushels to the acre; the quantity, however, is varied down to one and a fourth bushels. As to the time of pulling or cutting, this will depend much on the season and time of sowing. Perhaps, as a general rule, the proper time is when the farina or dust from the male hemp begins to fly, as this shows that this part of the hemp is on the decline. When pulled (which is a laborious process,) or cut, it is laid in swaths, like wheat, &c. until it is cured, which will be effected, in good weather, in two or three days; the leaves or tops are then beaten off with sticks; it is then shocked up, and a band of hemp fastened tight around the top. In this state it remains until it is removed for rotting.

Hemp is usually spread for dew-rotting late in the fall, the later the better, if there should be sufficient rains and snows to rot it; when spread early, there is a greater certainty of its being rotted in time, but it is usually darker. A primary object should be, to have it ready for the brake at the earliest moment after the first of January, so that every cold dry day may be devoted to the brake. On the subject of braking hemp, I should be glad to hear through your paper what improvements are made in this most laborious operation. I understand a spring pole fastened to the head block, has been tried with success in the West.

Having now, in as concise and plain a manner as possible, gotten through with my digressions, somewhat after the manner of our great men in Washington, I will conclude by giving you what I promised in my text on "water-rotting hemp." Hemp is ready for the water immediately after it is shocked, but the best time is from the 20th of September to the 1st of November. My pond, which is about ninety yards long by about thirty yards wide, and two and a half feet deep, is supplied by springs affording water sufficient to fill it in forty eight hours.—Before putting the hemp to water, which is tied into bundles of about the size of a man's body, the head gate is raised and the water let off; poles are then laid across the pond of sufficient distance for a layer of hemp, say from six to

eight feet; the first layer being down, butts all one way, the second is reversed, and so on, until four layers are down; it is then weighted down with plank and rock; this is then continued until the pond is full. The gate is then let down, and the pond fills, and so remains until it is sufficiently rotted. As to the time necessary, much depends on the season, temperature, and the character of the water. In a still pond, with no running water, eight or ten days will doubtless be sufficient. In 1842, I rotted, in October, in about fifteen days. My last crop, rotted in winter, was barely rotted enough in four weeks. There is, however, in a spring pond very little danger of over-rotting, and no danger whatever of sickness being produced by it. To ascertain when it is rotted enough, a small quantity can be taken out and dried, and applied to the brake. When watered enough, the water is let off, and it so remains for two days to drain, that it may be the lighter and easier handled. The bundles are then set up in shocks of about a dozen in each; in this state it remains a few days longer, depending of course on the weather; it is then spread until dry, and then shocked up neatly and bound at top and is ready for the brake. Should the weather be dry and windy, a day or two is sufficient time after spreading.

The advantages from water-rotting are considerable to those whose natural advantages make it convenient. I should be very apprehensive of artificial ponds or pools, as the exhalation arising from decomposing hemp is very offensive, and must be unhealthy. The first advantage in water-rotting is, that you are independent of the season; your crop can be got in readiness for the brake early in winter, whereas, in dew rotting, it may not be ready in a cold dry winter until the braking season is past, when you will be obliged to house or stack your hemp, or lose it. The next advantage is the enhanced price, growing out of its great superiority in color and strength.

I should be glad, Mr. Editor, to see frequent essays on this most important branch of our agriculture. Why is it that so little appears in your paper on this subject?

Your constant reader,

X. Y. Z.

Roanoke, Va., April 2, 1844.

We too should be glad to receive any additional information upon the subject of hemp.—We have in our office a specimen of water-rotted hemp, presented by Mr. William Peyton, of Roanoke, which we have reason to think rivals the best specimen from Russia. We know that Mr. Peyton esteems it the most profitable crop that can be grown upon rich land.

For the Southern Planter.

UPPER HOLE AND CORNER CLUB OF
MECKLENBURG.

C. T. BOTTs, Esq.

Sir—At the meeting of the Upper Hole and Corner Club in December, it was ordered, that the following report on the plantations of A. C. Morton, Esq., be published in the Southern Planter. I, therefore, forward it with the request that you will publish it in your paper.

Respectfully, &c.

B. W. LEIGH, Cor. Sec'y.

Mecklenburg, Jan. 23, 1844.

The report of the Committee appointed by the Upper Hole and Corner Club, to examine the plantations of A. C. Morton, Esq.

Your Committee had no opportunity of examining any other crops than the wheat, which we think was well and neatly seeded.

Until Mr. M. purchased his plantation, seven years ago, it had been managed entirely on the old Virginia plan. But within this period we think all will agree that he has greatly improved his land, both by manuring and sowing the artificial grasses. He has sown a large part of his plantation in the artificial grasses, but mostly in herdsgrass, (which he prefers to clover,) and has increased his manured surface at home to nearly three entire shifts for his crop of tobacco. He cultivates his land on the three shift system, both for corn and tobacco, which we think of doubtful propriety, where herdsgrass is used as an improver.

In manuring, his plan is to go over in the summer as large a surface as he can by penning both his cattle and his sheep, the latter of which, he thinks are but little injured, if they are not driven too fast, in penning. In the winter he collects a very large quantity of leaves and coarse grass into his farm pens in addition to his straw and stalks. Until the present year, Mr. M. has used the whole of his manure on his tobacco, but this year he has commenced applying some of it to his corn. As a proof of the success of Mr. M.'s plan of improving, we will state that the whole of his crop of tobacco at home, the present year, which we think all will concede to have been very fine, grew on very old high land made rich by putrescent manures and the artificial grasses. He has improved, by putrescent manures and the grasses, 275,000 tobacco hills, a large part of which has been twice manured, at home, and 80,000 at Walnut Hill, besides applying a good deal of manure to fruit trees, patches, &c. This has been done by a force of sixteen hands, rather inefficient, and frequently much hindered: and in the meantime we do not think that his corn land has deteriorated.

Mr. M.'s crops at home, the present year,

which we all know to have been a very bad one, were 169 barrels of corn, 300 bushels of wheat, 16 stacks of oats, 25 stacks of hay, and his tobacco, which was judged by all to be equal to 10 hogsheads, made by three men, two boys and four women, one of the men sick nearly the whole year. These facts prove, we think, beyond a doubt, that we can make tobacco, and at the same time improve our lands rapidly.

Mr. M. has a very fine meadow, which adds greatly to his forage and to his means of making manure.

Mr. M. is trying to improve his stock of cattle, and for this purpose has lately purchased a full blooded Durham bull of the stock of the late Rev. Mr. Kirkpatrick, of Cumberland.

Your Committee cannot fail to mention that, though Mr. M. found no orchard on his plantation, he has now a young orchard of apple trees beginning to bear, and an abundant supply of excellent peaches.

Mr. M. has, at considerable labor, made a beautiful fish pond, which also serves for his ice pond.

B. W. LEIGH,
P. C. VENABLE.

December, 1843.

For the Southern Planter.

TOBACCO.

Mr. Editor—The tobacco crop of Virginia has so greatly deteriorated in value that it becomes a serious question, by what means its prices may be increased. Light will be thrown upon this inquiry by a consideration of the causes which have reduced its value. The principal of these are the inferior quality of the article, and the great increase of the crop in the United States. The effect of the latter circumstance is a supply greatly increased beyond the increase of the demand. Our market has gradually, but slowly, extended, while a vast portion of our most fertile lands have been added to the tobacco region within a few years. This cause of low prices might be counteracted either by extending the market, or by reducing the crop. If China would abandon the use of opium and substitute our tobacco, we should be benefited, as well as her own people. Or if European governments would remove their enormous *duties* on tobacco, our remuneration for its production, as well as the royal revenues, would be proportionally augmented. These changes, however, are beyond our power. But the other remedy is in our hands: we can reduce the crop. Suppose we reduce it by a half; and that, instead of two hogsheads, we make one: it is obvious that we produce the same practical result we would by *doubling the demand*. Prices

would speedily go up. It may here be asked, objectingly, What is the difference between making a thousand pounds at five dollars, and five hundred pounds at ten dollars? In both cases, we would receive fifty dollars; but in the latter case, the fifty dollars would cost us just half the expense of time and labor that we give for the same sum, in the other case; and time and labor are the capital of the farmer.

This augmentation of value, by a diminution of the supply, might be effected by a general combination of the planters in the United States, and would unquestionably, be advantageous to all. But there is no probability of such an agreement with the new States. Virginia must act for herself; and here comes up the question, What can we do to increase the value of our great staple? Something must be done: we cannot afford to produce tobacco at present prices. We have no substitute for tobacco, and should we abandon it, and enlarge our crops of corn and wheat, the value of these would be depressed in proportion to their increase. Silk from the mulberry, and sugar from the corn-stalk may one day take their place among the staples of Virginia husbandry—but that will be hereafter. We must rely still upon tobacco for our largest revenue. What, then, can be done to increase its value? The ready reply is, produce a less quantity of a better article. All will admit that it is necessary to make better tobacco, in order to get higher prices; and in admitting this, they yield the whole matter. We can improve the quality of the crop only by cultivating less.—The two things go together. Our cleared lands are exhausted—we have no more forests to cut down—and our best "improved" lands must be much more improved before they can regain their original productiveness. Our resources for manure are limited, and it is very important to concentrate what we have on as small a surface as possible; because it is only by heavy manuring that our old land and lots can be made rich enough to produce good tobacco. Now, by cultivating less land in tobacco, we can employ more time and labor in making manure—we can make our tobacco lands richer, and cultivate the crop more thoroughly. Thus, we may produce better tobacco—and having a smaller quantity of plants and leaves, we can cure and prepare it for market in superior style.

In connection with the foregoing remarks, the writer suggests the following experiment to every tobacco grower who reads the Planter.—Every one has noticed those plants which, from any cause, have lost several leaves—how much heavier and richer are the three or four leaves that are left, and how much earlier they mature, than other plants of the same topping that ripen eight or ten leaves. Let the planter select, at his first general topping, several thousand plants of equal size and an equal soil—top

half the number at six leaves—the other half at eight or ten, as his custom may be; carefully note the appearance of the different plants as they grow and mature—cure them separately, and after weighing the different parcels, give the result in this journal. In all probability, a thousand plants with six leaves will weigh more than an equal number with nine or ten leaves: there certainly will be fewer "lugs," and a larger proportion of good leaf—for the plants should be "primed high." And "last, but not least," the six leaved plants would come to the knife ten or twelve days sooner.

These are mere suggestions for the wisdom of others to work upon. If worthy of attention, they will doubtless receive it; if not, they can do no harm. But I cannot forbear urging practical men to make the proposed experiment in topping low and priming high. The trouble would be trifling, and should it fail, the loss cannot be large. But if the result should be what I confidently anticipate, it might lead to important additions to individual wealth and the prosperity of the Old Dominion.

TAYLOR.

Springfield, March, 1844.

From the Southern (Georgia) Cultivator.

CULTURE OF CORN.

Messrs. Editors,—The communication which I am about to make, I designed making to the Albany Cultivator, last year, and would have done so had it not been for my aversion to appearing in the public prints. I at several times thought of making the communication over a fictitious name, but reflected that facts are not so apt to be received as such, unless a man vouches for their truth in his own proper name.

It may be proper to say, in the outset, that I am cultivating land on Flint river, which I settled some four years since for my father, and which, in the common language here, is "as rich as land ever gets to be."

Last year I planted for experiment one acre of corn in the following manner: The ground was first broken very deep, and then laid off two feet each way—the corn planted in checks and covered with the foot. When it was up about half leg high, I had it flat weeded and thinned to one stalk. When silking I had it flat weeded again, and this finished the cultivation—it never had been ploughed at all. About the time the corn was grown, a severe wind prostrated it in several places, so that I feared my experiment would fail at last. In addition to this disaster, it being in an exposed situation, the squirrels destroyed a good deal—the outside row was, I think, entirely consumed. At a proper time I had what was left gathered, shucked out, and measured the ears in a barrel in the same manner

as we purchase and sell corn. I had one barrel shelled, and as I had no measure upon which to depend, I weighed the corn thus shelled.— According to the weight of this barrel, the produce of the acre, as gathered, was five thousand one hundred and four pounds.

Now, farmers differ as to the weight of a bushel of corn. In the Southern States it varies from fifty to fifty-six pounds; the latter being the maximum weight. This I allowed, and you will perceive, upon calculation, that this will make it ninety-one bushels and nearly half a peck.

I have given you the result of an experiment tried under many disadvantages. I will now give you the reasons which induced me to plant as I did. It is a fact well known, that corn matures better in a colder climate than ours, and from this I inferred that it suffered too much from the intense and *collected* heat of the sun in our climate. This is one reason why I planted so close, for when grown in midsummer, the ground, and therefore the roots, would be protected from the sun by the shade of the corn itself. Another reason was, that in appropriating a given number of stalks to the acre, they had better be planted at equal distances from each other in every direction, so that the roots of one stalk will not interfere with those of another. By this system you make it more profitable, as every particle of earth will be reached by the roots, and no portion of soil be free from effort while other portions are overtaxed.

Another reason was, that when planted so as to shade the ground, (strange as it may appear,) it would better stand a drought, by preventing the largest portion of a shower from evaporating, as it is the case where the sun has free access to the ground. That this idea may not appear so novel, I ask you to reflect that the spots which remain moist for the longest time in the woods are those which are covered with the densest growth.

Another was, that it would save labor in the cultivation; for when the corn is high enough to shade the ground, weeds and grass cease to flourish. And still another reason was, that it saved the necessity of cutting the roots with the plough. I know this is a controverted point among practical farmers; but I would just as soon expect that an animal would be more thrifty by having his limbs broken or his mouth lacerated, as to suppose that a plant would be more vigorous in consequence of having its leaves or roots injured. The latter, vegetable physiology teaches us, serve as the mouth, and the former as the lungs, of plants. It has again been objected, that such close planting prevented the corn from getting *air*, which was necessary for its health.

It has seemed strange that this objection should have been urged, for if a philosopher

were experimenting in pneumatics, he would hardly say his receiver was "*air-tight*" if it had a crack of *two feet* in it. Finally, Messrs. Editors, we may theorize on the subject as much as we please, and there may be as many objections urged as it is possible to produce, yet unprecedented success and a full "*crib*" will answer them all—at least to my satisfaction.

There were two other acres connected with the one upon which the experiment was tried, part on one side and part on the other, planted and cultivated in the usual way. The product of both together scarcely equalled the one I report, though the corn had been worked oftener. This year I have planted some eight or ten acres after pretty much the same plan, and it is decidedly the best corn I have; the freest from weeds and grass, and will doubtless produce double of any other corn on the plantation, though the price is equally good elsewhere.

I am your friend, truly,

WILLIAMS RUTHERFORD, JR.

Crawford County, Sept. 15, 1843.

For the Southern Planter.

HOLE AND CORNER CLUB OF ALBEMARLE.

The undersigned, a Committee of Inspection appointed by the Hole and Corner Club of Albemarle to examine and report on the farm of Col. Thomas J. Randolph, respectfully submit the following report, regretting at the same time that they have not had an opportunity to make thorough examination of the farm in question:

Col. Randolph's farm, like most of those attached to the Club, is a corn, wheat, and tobacco farm, with all of which he has, for a few years past, combined *grazing*. This farm is, at present, in a high state of improvement, when compared with most farms in this part of the country, combining beauty and fertility; and from the exhibit made to us by Col. Randolph, and also by others, who state that when Col. Randolph became possessed of this farm, some fifteen or eighteen years ago, it was almost a barren waste, it affords most ample and satisfactory proof of what the industry and energy of man can accomplish when directed aright. Col. Randolph well deserves our highest encomiums for the great improvement he has wrought in his lands: he has probably made as great a profit on them by their increased value alone, as most farmers have made from improvement and moneyed returns combined.

The system of cropping pursued on this farm has varied much since Col. Randolph has had possession of it: at present he has adopted the seven shift system with the following rotation. 1st. Wheat on fallowed land which has lain out three years. 2d. One year's rest. 3d. Corn and tobacco. 4th. Wheat, to be followed by

three years rest in grass, to be grazed hard the third year.

The Committee has no doubt this may be a good rotation for Col. Randolph's farm; but at the same time they would suggest simply whether it would not be a better rotation with seven fields to have first wheat on land to be fallowed that has lain out two years; then two years rest under grass; then corn and tobacco; then wheat; then two years rest under grass, to be grazed hard and trampled the last year for the wheat which is to follow. At any rate, they do not hesitate to express the opinion that this system would be too hard an one for most of the farms in this vicinity, especially with Mr. Randolph's rotation of it; though *his* farm may improve under it, inasmuch as it has reached a stage of improvement which will bear a more frequent repetition of crops without prostration.

The Committee has not had time to enter into further detail of this system of rotation.—For the information of those not so well acquainted with this farm, however, and for the more correct appreciation of the exceptions we have taken to it, it may not be amiss to state that clover hay is cut to a considerable extent from some one or other of the fields while lying in grass, and, of course, all the manure, both animal and vegetable, which the farm affords, together with a liberal use of plaster of Paris is applied to one crop or another during the rotation.

The fixtures, such as fences, gates, &c. are remarkably good, and generally in good repair. Many of the fences are made of stone of the height of from two and a half to three feet, with a capping of three rails confined by stakes and caps, which we consider an improvement on the old mode of making stone fences; that is, entirely of stone to the height required; they are of course more liable to tumble and require repair, especially with such stone as is usually put into fences.

The farm buildings also deserve particular notice. They are, for the most part, well planned and built, and in a good state of repair. The barn is the most complete we have seen anywhere, possessing the advantage of roominess, convenience in arrangement, complete ventilation and economy of covering or roofing, and good fixtures in the way of threshing out wheat and freeing it from the chaff, this being all done by horse-power and at one operation. This barn is three stories high; the lower story of brick and stone; and we would recommend to any member of the Club who has not seen it, to examine it for himself. We had omitted to mention that there is a stable for work-horses in a part of the lower story of this barn which is convenient and comfortable; and as the subject of stabling is one a good deal neglected in this part of the country, we would also recommend this to the notice of the Club.

There is one exception which we feel compelled to make to the farm buildings, to wit, the negro cabins. These, or at least such of them as we saw, were not in keeping with the general improvement which we witnessed. They appeared to be small and rather rude in the style of construction, and withal rather detracting from the general air of neatness and good management which characterized the farm.—We do not wish to be understood as saying that the cabins were not comfortable; for we had not an opportunity of going inside of them, and consequently do not feel ourselves competent to pronounce on them in this respect. We hope, therefore, that Col. Randolph will respond to this expression of our opinion in such a manner as to satisfy us on this point.

The tools and farm implements which we saw were not remarkable, with the exception, perhaps, of two; one of these was a London barshare plough, which we think possesses decided advantages over the three-horse ploughs commonly used in this vicinity for breaking up fallows, especially in turf land. This plough was doing decidedly superior work to the three-horse McCormick, when we saw them both at work on the same land; though we must say that we did not think the ploughing remarkably good with either. The other implement to which we alluded, was a one-horse plough called a *skimmer*, to be used in working corn for the purpose of stirring the soil, and at the same time, cutting up the running brier and sassafras sprouts, to which our mountain lands are peculiarly subject. It gives the land a good superficial working and kills the grass and weeds at the same time. Its shape is that of two sides of an equi-lateral triangle with the angle working in front. It cuts about fifteen inches in width and runs from three to four inches under the ground.

The crops were very good for the season; though the corn, tobacco, and oat crops had been recently much curtailed, in consequence, we suppose, of the long drought we have had this summer.

The stock of cattle, hogs, and sheep are very good, and from their appearance show that they have been cared for. The working cattle are particularly good; they are mostly of a cross of the North Devon breed, and a finer specimen of oxen we have rarely seen.

The Committee are sensible that they have been unable to do justice to the farm of Col. Randolph, from the want of opportunity to examine it critically since the duty has devolved on them, and they are compelled to pass over many things which would be of interest to the Club.

WILLIAM W. MINOR,
FRANKLIN MINOR,
HUGH MINOR.

A JUDICIOUSLY MANAGED AND PROFITABLE FARM.

If our readers should derive as much pleasure as we did, in reading the subjoined account of the management and products of a thrifty Yankee's farm, they will thank us for having afforded them the opportunity of perusing it. The productiveness of this farm should go far to prove, how much better it is to cultivate a small farm *well*, than by attempting the culture of a large one, greatly beyond our means and force, to reap disappointment as the reward of our toils.—*American Farmer.*

STEPHEN BRINLEY'S FARM.

Not more than thirty miles from the city of Boston you may have noticed a pretty location—a sloping surface inclining to the south-east—the highest point covered with pines, furs, and other evergreens. At the foot of the slope, on the south, a gentle brook meanders over the washed pebbles, or when more full and generous, it distributes its favors over the green herbage and makes rich a long lawn that yields without culture the winter supplies for a sleek herd of red Devons and a few cosset sheep.

Mr. Brinley's farm consists of one hundred acres. Eighty of cleared land, ten of wood, and ten of timber land. The twenty acres of forest lie north of his buildings and protect them as well as his herds from the northerly winds. His dwelling house is not so large as to go without repairs, and his barn is large enough to hold his fodder and to shelter his stock.

The highway runs nearly east and west, and his house is set square with it instead of ranging with a north and south line. As the house stands on the north side of the highway it faces southerly, and you are not tempted in a cold day, to go round to the back side to enter it.

No evergreens are planted on the south side to screen it from the sun in winter—none are admitted there but such trees as are called deciduous, or mannerly enough to doff their caps as soon as they are found to intercept light and warmth which is wanted in the building in short days. But a belt of trees is flourishing on the west and north sides of the building, bidding defiance to wind and snow, and looking as fresh through the whole winter, as in June.

The barn and out-houses stand easterly from the dwelling-house and on the same side of the way, leaving the south and south-west breezes a free passage, and full authority to waft the noxious vapors from the manure heaps in a direction from the sitting rooms, in warm weather, such as accompanies breezes from this quarter. When the winds are north or north-east the effluvia is seldom offensive.

The principal barn has a deep cellar under the whole, but as it stands up well on the sloping

land no water stands underneath. The cow-yard is south of the barn and lower than the cellar, sloping enough to shed off all excess of wet into a pit on the eastern side where materials are thrown to become impregnated. Thus no ice is made in the yard to endanger the cattle's bones, and no mire-pits formed to catch and hold fast the shoes of the unwary footman.

A cheap shed runs the whole length of the west side of the yard, and another forms the east side.

The barn cellar is stoned on three sides, leaving an opening south. All the cattle lie loose under the barn and sheds; and when one or more requires different feed or treatment they are put in single pens.

Racks are made round, that the cattle may eat on either side without fear, as they will gather around a small stack of hay, not being exposed to be cornered and hooked, but free to fly off in a tangent when a superior nods at them.

The cattle have learned their places, and there is no more danger from hooking than when they are yarded in summer, the master cattle having their favorite stands and keeping them the principal part of the eating hours.—Some hay is wasted, as coarse hay always will be, in any mode of feeding; but as the yard is never very wet and as straw and the poor kinds of fodder soon accumulate about the circular racks, very little hay that is valuable will be lost, and the poor kinds will be eaten much better when exposed in the yard or in open racks than when placed in a close manger before cattle that must either starve or eat in a fixed position—the head confined and the knees worn bare on a hard floor.

The cellar is warmer in cold weather than the sheds, and in the coldest nights the master cattle choose the warmest part of the cellar, that is, the north end, to lie down in, and it sometimes happens that the underlings will choose to lie close beside them, and you will find a dozen head lying in a small compass.—But in moderate weather you will find the cattle preferring the open sheds to breathe a free air.

Mr. Brinley finds his cattle will eat coarse fodder better when they run loose than when they are tied to a stanchion; that they lie more comfortably, much cleaner; and that the labor of tending them is not half so great; that the milk is cleaner, and that the manure is much more valuable. For every drop of the urine of the cattle is absorbed by the loam that is carted into the yard and under the barn in autumn.—The solid part too is trod down and mixed with the loam, instead of freezing and thawing as it will when thrown out at the window in the usual manner.

The whole cellar is not occupied by the cattle, for the bay of hay takes fifteen feet of it and runs down six feet below the floor. This

bay, fifteen by forty feet, holds six tons below the floor; and as six tons more will fill it only six feet above the floor, twelve tons can be pitched into this one bay without a man or a boy to take it away from the carter.

One man goes up from the field with a load of hay and pitches it off without assistance, leaving the others to rake and prepare for the next load. This makes a great saving of labor in the very busiest part of the day, and when there is the greatest danger of loss from showers. The hay in the bay may be levelled down in the morning when all hands are near by and no lost steps are taken.

Under the barn carts can be driven without obstruction, going in on one side and turning about as occasion requires, to carry in loam or to carry out manure. A pump stands a couple of rods from the barn and a trough conducts the water to the trough which stands in the warmest part of the cellar and seldom freezes.

Mr. B. having eighty acres of cleared land, ten of which is natural mowing, and sometimes flooded, he keeps forty more in tillage and mowing. He has two acres of orcharding which he keeps constantly broken up, and no cattle or horses are allowed to run in it.

There remain nearly thirty acres of pasture land, most of which he can plough. On these thirty acres he summers fifteen cows or cattle of some kind, and he keeps half as many hogs as cows. The refuse of his dairy furnishes the principal part of the food for his young hogs, and he fattens his pork with Indian and buckwheat meal, potatoes, &c. He plants two acres of corn and one of potatoes, never planting the same plat more than once before laying it again to grass.

Four acres of his lightest soil are devoted to buckwheat. And as such land is not ploughed till the last of June, a green crop of weeds, &c. is always turned under, and he finds he may have an annual harvest of buckwheat with once ploughing and without manuring. But he occasionally sows buckwheat in May and ploughs in the first crop to enrich the land, and when he has time enough to sow again for a harvest.

This course leaves him about thirty acres of upland mowing, from which he sometimes gets sixty tons of hay, besides about twelve tons of stock hay on his low ground. Now as he breaks up but about three acres each year his English mowing land would yield him but little if it must rest till its turn came to be planted—it would not come more than once in ten years, and in that time it would be so clogged with grass roots and *bound out*, as we call it, that it would not yield half a ton to the acre.

To remedy this evil he adopts that branch of the *new system* which consists in turning over the green sward in August, and sowing grass

seed at once on the furrow. This saves the exhaustion which is caused by grain crops—saves the expensive operation of tillage—and secures large annual harvests of that most important article in a cold country, the most indispensable item in New England husbandry—a good hay harvest.

Mr. Brinley's cattle look sleek and handsome. If they are not all Devons they have the Devon color and appearance. No filth is found adhering to their sides and flanks, and they may be approached most readily in the yard without subjecting the inspector to a sight of filth and slime.

Mr. B. fattens ten hogs, which weigh, on the average, 4,000 lbs. This, at 6 cents, \$6 per hundred—gives 6 times 40—\$240. His cows—fifteen—nett him \$40 each,=\$600. He sometimes sells from 15 to 25 tons of hay in a year—and this at \$15 per ton—the average price of hay for thirty years past, gives not less than \$300 more.

Mr. Brinley keeps a couple of horses and with these he does the principal part of the labor on his farm; though he occasionally keeps a yoke of oxen, and he sometimes fattens them for market. Sometimes he purchases cattle from the country in autumn, keeps them through the year and sells them for beef, and keeps a less number of cows.

His four acres of buckwheat give him 80 to 100 bushels of grain, and his two acres of corn yield him, on the average, 120 bushels; and he raises his own rye and oats on three acres of ground that were planted the preceding year.—Occasionally he raises wheat instead of rye, for his own use; and generally he makes it a rule to buy nothing which he can raise on his own farm—so that whether prices are high or low he is not affected except in regard to the surplus which he has for sale.

From his orchard he realises a profit. Sometimes he sells 200 barrels; and whether apples are plenty or scarce the nett income is not so much varied as the quantity of fruit. He thinks he averages not much less than \$100 for his apples. These four items give on the average from 12 to \$1300 worth for sale. Then his family is supported besides from the same farm, and supplied not only with all kinds of necessities but with numerous luxuries. These are, honey from his bees, peaches, pears, quinces, currants, raspberries, strawberries, cherries, in their season,—and grapes of various kinds that give him a great supply from the first of September to the first of November.

Then he has a pair of horses to travel with, either in a wagon or in a family carriage, and he has always leisure enough excepting only in July when his hay harvest presses. This whole farm is carried on by the labor of one hired man through ten months of the year, one more in

July and a lad of a dozen years of age; and the owner is not under the necessity of laboring more than half the time. There is no crowd of work except in hay time.

In winter he needs but little help, for when at home he chooses to feed his own cattle by throwing their hay into the racks; and one of his horses pumps all the water for his stock by means of a fixed horse power, the cost of which was less than \$20. The same horse, at the same time, and in the same gear, may turn a grindstone, an auger, a churn, and a washing machine. The churning and the washing are done on Monday morning.

For the Southern Planter.

MEADOWS.

Mr. Editor,—Above you will find three chapters from the work on husbandry by L. Junius Moderatus Columella, who, it appears, was a contemporary of Tiberius, who died A. D. 37. So the work dates about the commencement of the Christian era. I send them to you for two reasons, first, as an agricultural antiquity and curiosity; second, that those who are experienced in meadows may be induced to give us their views—for information upon the subject of grasses and meadows, in the part of the State in which I reside, is sadly wanting. Few sections, in any country, afford so much land fit for meadows, nor is there, I dare say, in the civilized world, anywhere such utter neglect of grasses. Several reasons conspire to produce this effect; but, I doubt not, the chief reason is to be found in our utter ignorance upon the subject. Tobacco is the great Shibboleth of this region, when our necessities require that other things should not be neglected. We buy pork and horses from the drovers, and rely upon tobacco to pay for every thing. I should be much gratified to see something mature upon the subject of meadows in the Planter. Can you not enlist some successful grass-grower, and lay before your readers a full account of the subject?

1. The best situation and soil.
2. The best manner of preparing land for a meadow.
3. The best kind of meadow grass for Middle Virginia.
4. The best time for seeding a meadow.
5. The best time for mowing it.
6. The average quantity an acre of average meadow will produce.
7. How many ox-cart loads of manure are requisite to an acre of ordinary meadow land; and as the chancery lawyers say, "such other and further" information as experienced men think useful.

Most writers take it for granted that their readers know more than they really do, and,

therefore, omit just what puzzles the "green-horn." Whereas if they would write for the ignorant farmer, the well informed one would lose nothing.

I am, sir,

Your obedient servant,

PHILIP A. BOLLING.

We are much obliged to Mr. Bolling for the pains which he has taken in supplying us with the extracts, but we think our correspondents, whose particular attention we invite to the subject, can furnish him with information infinitely more practical, and much better adapted to the present state of agriculture than any thing he can find in *Columella*. The opinions expressed by the old Roman are curious and highly creditable to the author, as showing what correct views were entertained by this distinguished husbandman even at that early period.

GROOMING.

Of this, much need not be said to the agriculturist, since custom, and apparently without ill effect, has allotted so little of the comb and brush to the farmer's horse. The animal that is worked all day, and turned out at night, requires little more to be done to him than to have the dirt brushed off his limbs. Regular grooming, by rendering his skin more sensible to the alteration of temperature, and the inclemency of the weather, would be prejudicial. The horse that is altogether turned out, needs no grooming. The dandruff, or scurf, which accumulates at the roots of the hair, is a provision of nature to defend him from the wind and the cold.

It is to the stabled horse, highly fed, and little or irregularly worked, that grooming is of so much consequence. Good rubbing with the brush, or the currycomb, opens the pores of the skin, circulates the blood to the extremities of the body, produces free and healthy perspiration, and stands in the room of exercise. No horse will carry a fine coat without unnatural heat or dressing. They both effect the same purpose; they both increase the insensible perspiration: but the first does it at the expense of health and strength, while the second, at the same time that it produces a glow on the skin, and a determination of blood to it, rouses all the energies of the frame. It would be well for the proprietor of the horse if he were to insist—and to see that his orders are really obeyed—that the fine coat in which he and his groom so much delight, is produced by honest rubbing, and not by a heated stable and thick clothing, and most of all, not by stimulating or injurious splices. The horse should be regularly dressed

every day, in addition to the grooming that is necessary after work.

When the weather will permit the horse to be taken out, he should never be groomed in the stable, unless he is an animal of peculiar value, or placed for a time under peculiar circumstances. Without dwelling on the want of cleanliness, when the scurf and dust that are brushed from the horse, lodge in his manger, and mingle with his food, experience teaches, that if the cold is not too great, the animal is braced and invigorated to a degree that cannot be attained in the stable, from being dressed in the open air. There is no necessity, however, for half the punishment which many a groom inflicts upon the horse in the act of dressing; and particularly on one whose skin is thin and sensible. The currycomb should at times be lightly applied. With many horses, its use may be almost dispensed with; and even the brush needs not to be so hard, nor the points of the bristles so irregular, as they often are. A soft brush, with a little more weight of the hand, will be equally effectual, and a great deal more pleasant to the horse. A hair-cloth, while it will seldom irritate and tease, will be almost sufficient with horses that have a thin skin, and that have not been neglected. After all, it is no slight task to dress a horse as it ought to be done. It occupies no little time, and demands considerable patience, as well as dexterity. It will be readily ascertained whether a horse has been well dressed by rubbing him with one of the fingers. A greasy stain will detect the idleness of the groom. When, however, the horse is changing his coat, both currycomb and the brush should be used as lightly as possible.

Whoever would be convinced of the benefit of friction to the horse's skin, and to the horse generally, needs only to observe the effects produced by well hand-rubbing the legs of a tired horse. While every enlargement subsides and the painful stiffness disappears, and the legs attain their natural warmth, and become fine, the animal is evidently and rapidly reviving; he attacks his food with appetite, and then quietly lies down to rest.—*Sorratt.*

DEEP PLOUGHING.

To the Editor of the Southern Planter:

Sir,—Considering you as guardian of the agricultural interest of our State, I take upon myself the task of inviting your animadversions towards the destructive system of cultivation, practised by the farmers of Brunswick and Lünenburg.

Our land is mercilessly cut down; then the soil merely skimmed off, without breaking or loosening the bed of clay on which it rests: but this may be necessary for the crop of tobacco, which is first. Next, it is sown with wheat,

and then fallowed for corn, with ploughs cutting only from three to five inches deep. From this mode of cultivation, the natural inclination of the land to wash, is much increased, and in a few years, we find the hills sterile, and in a worthless condition.

Is it not reasonable to suppose, that the numberless galls and gullies on our farms are in a great measure caused by these slight and imperfect ploughings? For when the thin soil is thus made light, and left on the hard clay, impenetrable to water, the rain not being absorbed immediately, collects in considerable streams, which pouring down the declivities, carry away the best and only productive portion of the land.

But it may be objected, that the elay, turned up by deep ploughing, will injure the crop. In reply, I can scarcely grant that it does so to any extent; if any, only for the first season, which will be amply atoned for in the next; for the clay is in a short time pulverized, and rendered productive by exposure to the air, and becomes the richest and most lasting soil. This fact is proven by the exuberant growth on the banks of ditches and canals, where clay has been dug from three to twelve feet below the surface, thrown out, and in twelve months is covered with vegetation far surpassing that on our best improved lots.

From these observations, I am convinced, were we to adopt the system of ploughing our lands deep and thoroughly, that our land would become richer and more fertile; that the soil would be rendered deeper by every fallowing; that instead of the crops suffering from drought, as they now do, the mellow loam would allow the roots to run and expand; and by the nocturnal moisture, which could then arise, they would be refreshed, and enabled to withstand the blaze of the midsummer sun; and lastly, that our fields would no longer be washed and ruined by the autumnal rains.

Grateful for the correct ideas received from your journal,

I am, sir,

Your obedient servant,

E. H. E.

Brunswick, Dec. 16, 1843.

We will take the guardian's privilege of enjoining upon our self-constituted ward the *practice* of his own excellent doctrine. The surest, if not the quickest, way to reclaim a neighborhood from the error of their ways, is to place before their eyes the practical result of a better system.

FEEDING ANIMALS.

Some very useful remarks, and important tables of comparison, are given in a late number

of the Royal Agricultural Society's Journal, from the French of M. Antoine. The most important of these tables we may give hereafter, but at present we shall merely quote what is said about feeding animals.

"A certain quantity of food is required to keep an animal alive and in good health; this is called his necessary ration of food; if he has more, he will gain flesh, or give milk or wool. An ox requires 2 per cent. of his live weight in hay per day; if he works, he requires 2½ per cent.; a milch cow 3 per cent.; a fattening ox 5 per cent. at first, 4½ per cent. when half fat, and only 4 per cent. when fat, or 4½ on the average. Sheep grown up, require 3½ per cent. of their weight in hay per day, to keep in store condition. Animals while growing require more food, and should never be stinted."

According to this calculation, a sheep of 50 lbs. weight would require 1 lb. 11 oz. per day; and one of 100 lbs. weight, 3 lbs. 5 oz. Or it would require 199 lbs. of hay to keep the first sheep 4 months; and 397 lbs. for the same time the last. This, it is believed, agrees very well with the experience of our farmers, who are in the habit of allowing about one ton of hay to every 10 sheep. It must be remembered, however, that this calculation is based on the very best hay; so that when the farmer whose sheep have had this quantity of thistle, johnswort, daisy, &c. &c., but all called hay, dealt out to them, finds his sheep dying off by dozens in the spring, he need not attribute it to an error of calculation. The great difference between hay of the first quality, and that of inferior kinds, is too much overlooked by the farmer. According to M. Antoine, if 100 lbs. of good hay is taken as the standard, it will require 120 lbs. of the second quality to keep an animal in as good condition as the first; 140 lbs. of the third quality; and so on, until hay may be so poor as scarcely to support animal life given in any quantity.—*Cultivator.*

For the Southern Planter.

ARCHITECTURE.

Mr. Editor,—There are few subjects of greater interest and importance to the farmer than the construction of dwellings and other buildings, and, in Virginia at least, there are few subjects on which our farmers show greater apathy or indifference. It is to be regretted that the valuable and entertaining pages of the Southern Planter have not been enriched by contributions from architects and others, who have it in their power to give valuable information in reference to designing, planning and constructing farm buildings. And why is it that so little attention is paid to architecture, both as an useful art and one intended to embellish and adorn the homes

of our farmers? Surely we all delight to live in a commodious and comfortable and even beautiful dwelling. When a gentleman undertakes to build, instead of obtaining the views of a professional architect—one who has by study and practice prepared himself to give valuable aid to those who wish to build, he builds as his neighbor, or after the plan of some one who has not one correct idea of proportion, or taste, or convenience.

But, Mr. Editor, my purpose to-night is not to give your readers a lecture on this important subject. I design building a cheap cottage on my farm, and, my means being limited, I feel at a loss about the construction of my dwelling.—I desire to build a plain, comfortable and pretty cottage—such a dwelling as would both suit my purposes and at the same time embellish my farm. The perusal of the most valuable and entertaining works on landscape, gardening and cottage residences, by Mr. Downing, (works which every man ought to have,) called my attention to the name of an accomplished architect. I corresponded with him—told him my wants—limited him in the sum to be expended; and the result of my application was the receipt of designs for one of the most comfortable, convenient, and elegant cottages I have ever seen. He met my wishes in a most satisfactory manner—and has really given me a building with a greater number of rooms and closets than I imagined could be constructed in the space included in the walls and for the small sum to be expended. I never saw the architect, but have had the pleasure of a very agreeable correspondence with him. He is a gentleman of intelligence and taste and a superior man in his profession.

With no desire or interest to make a *puff*, allow me, Mr. Editor, to bring to the notice of my brother farmers the gentleman to whom I have referred. I allude to Mr. JOHN NOTMAN, Architect, Philadelphia. I can cheerfully and with unaffected sincerity recommend Mr. Notman.—I feel assured that those who may have occasion to obtain the very valuable aid of Mr. Notman will not regret that they have done so.

Cannot you, Mr. Editor, or some of your correspondents (more accustomed to the pen than I am) do something for the cause of rural architecture and embellishment of our beloved Old Virginia—something to adorn our HOMES, and thus add to the materials of our happiness?—Rely upon it, sir, if I am compelled to resort to the argument of dollars and cents, (the most irresistible of all modes of reasoning,) I can tell your readers that, in the end, it costs no more to build a house of good proportion and with a little embellishment as to architectural appearance, than a huge barn-like looking building. And I may be wrong, but it appears to me that it is almost as reasonable for an unskilled person

to attempt to plan a house, as to conduct his own law-suit, or to make his own clothes.

Excuse this troubling you with these thoughts, and do with this communication as "to you seemeth good;" if it shall suggest to your attention a most neglected, though important, subject of interest, hitherto unnoticed in the Planter, I shall not regret that I send this paper to you.

JUNIOR.

J.—Cottage, March 30, 1844.

There is nothing within the compass of our small abilities that we will not do, to assist our correspondent in giving to our Virginia homes the only charm they lack, that of outward embellishment.

For the Southern Planter.

FOUNDER IN HORSES.

Mr. Editor,—I had a fine horse last summer, badly foaled. He could barely hobble about and seemed to suffer from the slightest movement. I recollect a remedy recorded in the Planter, and, after bleeding the horse copiously from the neck, I applied your correspondent's prescription. Heating hog's lard to boiling heat, each hoof was inserted in the vessel filled three or four inches with the oil, which hissed upon the hoof. Nothing more was done, and the next day the horse was entirely recovered.

T. Y. D.

ANIMAL POISONS.

The venom of the bee and the wasp is a liquid contained in a small vesicle, forced through the hollow tube of the sting into the wound inflicted by that instrument. From the experiments of Fontana, we learn that it bears a striking resemblance to the poison of the viper. That of the bee is much longer in drying when exposed to the air, than the venom of the wasp. The sting of the bee should be immediately extracted; and the best application is opium and olive-oil; one drachm of the former finely powdered, rubbed down with one ounce of the latter, and applied to the part affected by means of lint, which should be frequently renewed. No experiments upon which we can rely have been made on the poison of the spider tribe. From the rapidity with which these animals destroy their prey, and even one another, we cannot doubt that their poison is sufficiently virulent. Soft poultices of fresh flesh, bread and milk, or in the absence of these, even mud, are excellent applications to the stings of insects, and even the bites of the most venomous snakes. The specifics, recommended in such cases for internal use, are not to be compared in efficacy with the timely application of a poultice of the flesh of a chicken or other animal recently killed. The

flesh of the rattlesnake itself, in some parts of America, is reckoned to possess specific virtues, and doubtless will answer nearly, if not quite as well, as any other good soft and moist poultice, which will seldom fail to effect a cure when promptly applied and frequently renewed. In this way the irritation and inflammation induced by the poison in the part bitten, is often arrested at once, and prevented from extending to vital parts. These conclusions are the results of experiments made with the poison of the rattlesnake, in which the most celebrated Indian and other species were used with little if any advantage.—*Farmers' Encyclopedia*.

From the Farmer's Gazette.

PROTECTION AGAINST DROUGHT.

Mr. Wood,—The severe drought this summer has destroyed a great many young trees in this city—some even that had been planted several years. This is a serious evil, and much greater than the loss of a portion of our garden vegetables, or shortening the crop of potatoes and grass; because the latter may be produced another year, whilst many years and much care are necessary to repair the loss of trees of any considerable growth; and it is, therefore, an inquiry of interest to every one who has a young tree, how he may protect it in a season of drought. The method which I have practiced with *unfailing success* for several years may be new to *some* of your readers, and I will, therefore, relate it. In the summer, when there has been no rain for some time and vegetables begin to droop, I put a coat of *ground tanner's bark*, or *tan*, (as it is called,) about the trunk of my young trees, from eighteen inches to three feet in diameter, and two or three inches thick; and if the drought continues long I wet the tan occasionally—perhaps once in ten or twelve days. The tan prevents the rapid evaporation of moisture from the ground, and the soil beneath it will remain moist and light if not wet for two or three weeks. I set out fourteen elms about my lot in a very sandy soil in April last, and in June, on the first appearance of drought, I put some tan about them, which I wet but once afterwards; the trees have grown finely the whole time, and now look better than any I have seen which were planted this year.

My garden is situated on high ground, without the protection from wind or sun from any quarter, and naturally a very thin and sandy soil; and yet I have not in four years lost a tree from drought, out of a large number planted every year, having protected them in this manner. The trees and shrubs in the burying-ground have been preserved through the drought by watering and cutting the grass and putting it about them. This is a very effectual protec-

tion but attended with more trouble than my method, as they require watering much oftener. A nurseryman, near Boston, once said to me, "never water a tree after it is planted out." This rule will not always answer in our soil, if it does in Boston; but many trees are certainly injured by improper watering, and I should, therefore, say, *when you water a tree put something about it to check evaporation and keep the ground from "baking,"* and in my opinion tan is the best material for that purpose. I have also put tan about strawberry plants newly set out, with decided advantage—not only protecting them in dry weather, but keeping the fruit clean and preventing them from being "winter killed."—The only objection which I know to its use on strawberry beds, is that it prevents many of its runners from taking root. This, with rare kinds which it is desired to increase rapidly, is an objection to covering the whole space between the plants, but it may be obviated by putting it a few inches about each plant, leaving the remainder of the ground uncovered. I set out a large bed with about two hundred of Hovey's seedlings in August and September last, with tan about them, and did not lose a single plant. They were *every one* in fine order in the spring, and did not even wilt during the severe drought this summer, although they were not watered at all.

Yours, respectfully,
S. D. P.
New Haven, Aug. 11, 1843.

CURE FOR SPAVIN.

Mr. E. D. Worbasse, of New Jersey, writing to the Editor of the *Cultivator*, says, "The following I have found would cure a bone spavin in its first stages, if properly applied. Add to two table-spoonfuls of melted lard, one of cantharides, made fine or pulverised, and a lump of corrosive sublimate, as large as a pea—all melted up together, and applied once a day till used up, confining it to the callous. This quantity is for one leg, and may be relied on as a cure. It will make a sore and the joint will be much weakened while applying the medicine. No need of alarm; it will all be right when healed up."

A HINT TO HOUSE OWNERS AND BUILDERS.

No portion of a house is so important to its preservation as a good roof; and yet, strange to say, although a poor uncivilized Indian can with common bark, cover his cabin or wigwam so effectually as to prevent a leak, the generality of "modern roofers," with the aid of a choice of materials—tin, copper, zinc, &c.—seldom are found ingenious enough to prevent a roof from leaking. The leaks most common to newly

built houses are found about the chimneys, or wherever the material of which the roof is made, comes in contact with brick work. This arises from not properly covering the edge of the roofing. In tin roofs, the usual custom is to carry the sheets of tin some foot or six inches up along-side the brick work, and to putty, or plaster, or cement the seam; but after a short time, either by shrinking of the rafters and other wood work of the roof, or a settling of the chimney, this putty, cement, or plastering, is found to show a crack, by the tin being drawn from its position, and the water enters and runs down under the tin.

In other cases the upper edge of the tin is bent and inserted in the brick work, but the shrinking and settling above alluded to, produce the same result; the tin is drawn from its position and a leak is sure to follow. This causes more putty and plaster, and "paint skins" are also resorted to, but after a few showers and hot days they all prove ineffectual. Ask a roofer, and he will tell you "these leaks can't well be prevented; it always has been so and always will be, as long as wood shrinks or chimneys settle."

Now, a very simple plan cannot fail to prove a complete protection against leaks. When the chimney is built, let the mason be instructed to insert between the second and third tiers of bricks *above* the roof, a strip of sheet lead, say six inches wide, leaving about four inches projecting outward, the other two inches being firmly masoned in the brick, and leave it there. Then the roofer, when he is completing his work, will carry the sheets of the roof up the side of the chimney nearly to this lead, which he will then bend down over the upper edge of his work, and batter it smoothly and snugly down. There must be no soldering or nailing the two together. With this arrangement the shrinking of the wood work of the roof may draw the tin or other metal of which the roofing is composed, or the chimney may settle, but no leak can occur there in consequence.

If this plan is to be applied to houses already built, the hood of lead can be inserted in the brick work of the chimney by cutting out the pointing and plastering of the brick, and securing the lead with new cement.

Any man who builds a house and desires to have a tight roof, should insist upon having this lead hood inserted firmly in the work that rises above the roof, so that when the roof is put on there is a covering ready to be bent down over the roof work, when it joins the brick or stone work of the house.—*N. Y. Com. Advertiser.*

NOVEL METHOD OF WORKING BUTTER.

A correspondent of the *American Agriculturist*, writing from Montpelier, Vermont, says,

"A very useful and ingenious mode of extracting whey from butter, was recently related to me by a gentleman who had resided many years in the grazing districts of France; and he informed me that a similar apparatus is at present in successful operation, near by here, in this State, although I have not yet seen it. He described it in a manner that could not fail to be understood by any farmer in the Union.

"The machine, he represented as made of wood, in form not much unlike a grindstone, closely fitted into a trough, leaving a space between the stone and bottom of the trough not exceeding a sixteenth of an inch in thickness. The trough is first filled with clean water saturated with salt, one end of which is crowded full of the newly-churned butter. Then the stone is put in motion by means of the crank or otherwise, and the butter is drawn beneath it, and comes out at the other end of the trough in thin sheets, not more than one-sixteenth of an inch in thickness, almost entirely freed from the whey, and for common use requires no further salting. The brine thus prepared, has another very important office to perform. It imbibes, by chemical affinity, all the whey with which it comes in contact, and leaves the butter by itself.

"Although this apparatus is extremely rude and simple, it is obvious to an ingenious mechanic, how easily such a machine could be improved upon, and answer a tenfold purpose."

PEACH TREES.

To the Editors of the Louisville Journal:

Gentlemen—I recollect seeing a short time ago, in some paper, an article about peach trees, recommending to cut them down or dig them up, when affected with the *yellows*; this prescription is like cutting the throat of a sick animal, fearing lest it should die of the disease. If the cause of the *yellows* is removed, and the sick animal cured by proper remedies, natural health is restored to each.

The only enemy of the peach, as I believe, is a small whitish worm with a brown head, about an inch and a quarter long. Destroy the worm in any way you may, and the health of the tree is restored.

I have some Heath peach trees, obtained from Mr. William Morton, of Lexington, Kentucky, now more than twenty years old; from neglect they occasionally have had the *yellows*, but destroy their enemy, and the health of the tree is restored. Scoop the earth from about the root of the tree, so as to form a bowl eight or nine inches deep; the tree in the centre; the out edges of the bowl to be eighteen to twenty-four inches from the tree; do this about the first of September; let it remain so until the first of December; then fill the bowl level with wood

ashes; I have used leached ashes with uniform success; I have no doubt that lime will do as well or better than ashes. By exposing the roots to the sun and air, the propagation of the worm is checked, it gives birds (particularly a kind of wood-pecker or sap-sucker) a chance to peck them out. If the first attempt does not relieve the tree, repeat it; search for the worms and destroy them or the tree cannot flourish.—My old trees are as healthy at this time as young trees can be, and if next year be a good year for fruit, they will no doubt yield abundantly.

Your obedient servant,

LEWIS SANDERS.

Grass Hills, Ky., Nov. 10, 1843.

PRESERVING ROOTS.

In a communication from our friend Mr. Bement to the Central New York Farmer, we find the following:

"Carrots and sugar beets are equally tender with the potato, and as liable to be affected by frost, consequently they will require equal attention, or the crop may be lost. In gathering them, care should be taken to cut off their tops about half an inch or so above the crown, as they will not keep so well when cut too close, for which reason some prefer wringing them off with the hand."

MILLER'S SAFETY REINS.

These consist of gut covered with leather, and are, therefore, proof against fracture; and being round, and of neat light appearance, form a rather ornamental and sporting-like appendage to harness or saddle. They are mounted in this way:—They pass through a hook placed on the head of the harness-bridle, and through a leather loop on the head of the riding-bridle, and come down on each side of the neck. About middle-way down the neck is a coupling with two swivels, which receive the reins from the head, and they then pass through the dees of the harness, and through the turrets of the harness-saddle, and along to the front of the splash-board to a rein-holder, by which they are held always ready for use. The head of the horse and the turrets of the saddle being both higher than the throat, and the coupling being short, and having leave to traverse the reins on each side of the neck, it settles on that part of the throat at which the reins, on being pulled, exert the greatest force, when, the windpipe being forcibly compressed, the horse becomes affected in his respiration, and, therefore, stands still, or slackens his pace for breath, which he immediately obtains on the reins being slackened.

Thus, feeling he is mastered, the horse shows no farther inclination to run off again; but in case he should renew symptoms of starting off, a few firm grips of the coupling on the throat will let him feel the futility of his attempts.

In explanation of the origin of the invention, Mr. Miller stated that he was a farmer's son, and that, in his youth, he used to be employed at times to assist in catching horses at grass, by means of surrounding them with a rope, borne by a person at each end of it. He remarked that, in this service, although no restraint was laid upon the horses when the rope rested on their chests, yet, whenever it could be got upon their throats, they instantly stood still and allowed themselves to be taken. The idea which this recollection suggested, of the probable effect of pressure on the throat in stopping a runaway horse, led Mr. Miller to the contrivance of his safety reins. In his first experiment, the band which connects the reins under the neck was attached to the headstall by hooks and straps; but it has been considered an improvement to allow it to move freely upon the reins, on which it settles in contact with the throat, in a proper position for use when required.

Our communications with Mr. Miller impressed us favorably in regard to his contrivance; but, wishing to see it in practice we availed ourselves of an offer by him to afford us an opportunity of judging of it in operation. We, accordingly, on a day appointed, accompanied him in a carriage drawn by one horse, for the purpose of trial; and we witnessed as spectators, as well as made ourselves, repeated tests of the reins, with the horse going at a smart canter, both on a level road and on a descent, and we invariably observed that the tightening of the reins caused the horse immediately to stop. No injurious effect seemed to be produced on the horse by the interruption of his respiration. He always appeared to breathe freely, and to be ready to resume his work, as soon as the tension of the reins was relaxed.

Upon the whole, therefore, we consider Mr. Miller's invention to be a neat and simple, as well as, to appearance, an effective contrivance for the accomplishment of its important object, in the prevention of the disastrous accidents which not unfrequently occur from horses running away; and we think it reflects much credit on the ingenuity of its inventor.

We know of no more ridiculous or helpless situation in which a poor devil can be placed, than to be pulling and tugging at the mouth of an ill-natured brute, who has got the bit between his teeth. Many plans have been devised to guard the defenceless occupant of a wheel carriage from the dangerous propensities of an ill-broke horse; but none seem to us likely to

prove effectual and so simple as these safety reins. Another mode has been adopted in France: the safety reins are attached to the blinds so as to enable the driver to draw them at pleasure close over the eyes of the horse: this is said to be an effectual stoppage to his career. We had rather depend upon *choking* than blinding.

From the American Agriculturist.

CULTURE OF RUTA BAGA.

Hereford Hall, near Albany, }
September 27, 1843.

I have about nine acres of ruta baga, which I sowed broadcast, and I verily believe it to be the best system of growing them. I have tried every new and *fashionable* experiment, but after all I prefer the old one, when you have men that understand hoeing them, and I can soon teach a person, if he is *willing to work and observe*; the only difficulty is they leave them too thick.

I can grow a greater weight per acre, and my manure is spread regularly over my soil for the succeeding crop. I ploughed a piece of sod the early part of last fall, cross-ploughed just before the winter set in, leaving it as rough and as much exposed to the weather as possible.— Early in the spring, I harrowed it *thoroughly*, raked up all the conch and burnt it. I ploughed it the third time the latter part of May, and gave a second dressing with harrows and rakes, and burnt all the refuse. I then put on about thirty loads of good rotten manure per acre, which had been turned in the mine in the course of the winter and well mixed together, and all pernicious seeds decayed. I ploughed it under about four inches deep, and sowed the seed on a fresh furrow. They have grown luxuriantly, and are a very profitable crop for a breeder.

Sir John Terrill, in answer to Mr. Everett's remarks in England, said the climate would not allow us to grow Sweeds (ruta baga) in America. I say that better Sweeds can be grown here than in England, under the same culture. I have grown better, and more weight to the acre, and I have cultivated them extensively in both countries, more especially in England.

WILLIAM H. SOTHAM.

BROOM CORN.

Broom corn is much cultivated, and with success, in some towns on the Connecticut river, in Massachusetts. The amount produced on one acre, varies from eight hundred to one thousand pounds, besides sixty or seventy bushels of seed. The brush is said to be worth four or five cents per pound; in 1837, it was worth twelve and a half cents per pound. The seed on an acre, at

thirty-three cents a bushel, is said to be equal to a crop of oats. In Northampton, and its vicinity, not less than one thousand three hundred acres are thus cultivated, worth, for the brush and seed, \$100,000. The seed usually weighs forty pounds per bushel. The manufacture of brooms in a small town, Hadley, in Massachusetts, is estimated at \$160,000; eighty thousand brooms were manufactured by one man in a year. To a limited extent, this culture of the broom corn and its manufacture, might be yet more extensively engaged in with advantage. The process of cultivation is similar to that of maize or Indian corn.—*Berkshire Farmer.*

EFFICACY OF BATHING IN CERTAIN MORBID STATES OF THE MIND.

Judging from the beneficial effects of cold and warm water bathing in case of mental irritation caused by cerebral disease, I should feel disposed to consider that the steady use of these remedial agents would, in incipient derangement of the mind, be accompanied by the happiest results. It is much to be lamented that the practice of regular systematic bathing is not recommended and adopted in this country. The state of the mind is closely dependent upon the condition of the cutaneous secretion. I would advise those who are subject to mental depression, hypochondriasm, vapors, ennui, or by whatever term it may be designated, to try the effect of bathing. I feel assured that in many cases violent attacks of insanity may be warded off by the use of the warm or cold bath. In cerebral irritation, evidently the result of vascular excitement, bathing the head regularly every morning with cold water, or vinegar and water, will be found highly serviceable.—*F. Winslow's Health of Body and Mind.*

NEW MODE OF PROPAGATING FRUIT TREES.

The New Hampshire Whig says, "Two of the best farmers within our knowledge secure their fruit trees thus: they dig at some distance from the body of a favorite tree until they find a root, which they cut off. The part disjoined from the tree is turned up so as to appear above ground. This sends forth shoots the first season, and bears in a few years fruit precisely like the parent tree. Let those whose trees are decaying, or who wish to increase good varieties, try the experiment."

ASPARAGUS OUT OF CUCUMBERS.

Some time since, on the authority of a correspondent, we recommended that cucumbers be dressed in the same way as asparagus and a dish would be produced equal to the latter. We

have tried the experiment, and find that our correspondent is correct—many thanks to him.

The Savannah Republican notices the suggestion, and states that the article has been served up on *toast* at the Pulaski House, Savannah, for the last six years; and says that if the cucumbers be sliced lengthwise, and fried in butter, they will be found an excellent substitute for fried oysters.—*New York Sun.*

AN INSECT TRAP.

Scoop out the inside of a turnip; scollop the edge of the shell, and place it downward on the earth. The insects will pass into it as a place of retreat, through the holes; and the beds of squashes, melons, cucumbers, &c., may thus soon be cleared of them.

ENGRAVINGS.

The continued indisposition of our Engraver deprives our readers of the usual illustrations for the present number. The Editor is now absent at the North chiefly for the purpose of securing a continued and bountiful supply of choice engravings for the Planter.

CONTENTS OF NO. V.

- Pipe Clay*—Information wanted, p. 97.
- Poultry*—How to fatten, p. 98.
- Peas*—A great fertilizer, p. 99.
- Feed for Stock*—Comparative value of hay, vegetables and corn, p. 100.
- Corn*—The best mode of cultivating desired, p. 100.
- Lime*—Praetical dissertation on, p. 101.
- Agricultural Papers*—Value of, p. 104.
- Ashes*—Should be given to stock in fattening, p. 104.
- Fecundity*—Extraordinary cases of, p. 104.
- Hemp*—Water-rotting, preferable, p. 105.
- Report*—Of the Upper Hole and Corner Club of Mecklenburg, p. 107.
- Tobacco*—Greatly deteriorated in value, p. 107.
- Corn*—A great yield, p. 108.
- Report*—Of the Upper Hole and Corner Club of Albermarle, p. 109.
- Farm*—A judiciously managed and profitable farm, p. 111.
- Grooming*—Proper mode of, p. 113.
- Meadows*—Value of, p. 113.
- Galls*—Deep ploughing a preventive for, p. 114.
- Animals*—Table for feeding, p. 114.
- Agriculture*—Its importance, p. 115.
- Horse*—Remedy for founder in, p. 116.
- Animal Poisons*—To cure, p. 116.
- Drought*—Protection against, p. 116.
- Spavin*—Cure for, p. 117.
- Architecture*—A hint to builders, p. 117.
- Butter*—Novel method of working, p. 117.
- Peach Trees*—Mode of preserving, p. 118.
- Roots*—Should be protected from frost, p. 118.
- Safety Reins*—A valuable invention, p. 118.
- Ruta Baga*—Culture of, p. 119.
- Broom Corn*—A profitable crop, p. 119.
- Bathing*—Its efficacy in certain morbid states of the mind, p. 120.
- Fruit Trees*—New mode of propagating, p. 120.
- Cucumbers*—A substitute for asparagus and fried oysters, p. 120.